

DEP BWSC RAO Technical Screening Audit Form

SCANNED

Disclaimer: This checklist is for use by DEP in reviewing *Response Action Outcome (RAO)* Statements, and may not be relied upon for any other purpose. This checklist is not a comprehensive list of RAO requirements, which are fully set forth in MGL c. 21E and 310CMR 40.0000. Completion of this checklist by DEP does not constitute a final agency decision, and does not create any legal rights or relieve any party of obligations that exist pursuant to applicable laws.

SUBMITTAL TYPE (Underline one)			OHM Type: VOCs, TPH, PCBs, Asbestos Source: former USTs, Historical Use Media Affected: Soil, groundwater Site Use: Middle School Formerly: Numerous industries	Lead RTN: # 1
ARO	RAO-P	LSP Eval. Opln.		Date RAO Rcvd:
Waiver Compl. St.		RAO w/ AUL		Recommend for L3?
Other:				
Town:			Site Name	
Address: 31, 33, 35, 39-43 & 55 Site Ave. and 48 Adjacent Street				
PRP/OP: City Public facilities Dept., Contact			LSP Name:	
Consultant: LSPCo.			LSP No:	

TECHNICAL SCREENING CHECKLIST

Condition	Yes	No	?	Page#
I. SITE CONCERNS (Based upon conditions at time of RAO submittal)				
A. Time Critical Conditions (Check all that apply)				
1. <input checked="" type="checkbox"/> > Applicable GW-2 standard @ residence/school with no soil gas/indoor air sampling				
2. <input checked="" type="checkbox"/> >0.5" NAPL observed in any monitoring well				
3. <input checked="" type="checkbox"/> One or more data points > UCL				
4. <input checked="" type="checkbox"/> EPC in S-1 soil > Method 1 standard and school/residence within 500 feet				
5. <input checked="" type="checkbox"/> Site contaminants present in indoor air				
B. Drinking Water (Check all that apply)	Yes	No	?	
1. Site within potential drinking water source area (PDWSA)				
2. Site located within IWPA/mapped Zone II				
3. Private/Non- municipal public well(s) located within 500 feet of site				
4. Municipal well(s) located within 1000 feet of site				
5. <input checked="" type="checkbox"/> Contaminated private well confirmed with same contaminant-type as source/release				
6. <input checked="" type="checkbox"/> Contaminated public water supply confirmed as a result of site				
C Contaminated Soil (Check all that apply)	Yes	No	?	
1. Category S-3 Soils				
2. Category S-2 Soils				
3. Category S-1 Soils				
D. Site/Area Use (Check all that apply)	Yes	No	?	
1. Industrial (no children likely to be present)				
2. Commercial (limited presence of children)				
3. School/Institution				
4. Residential				
E. Contaminant Type(s) (Check all that apply)	Yes	No	?	
1. Petroleum Fuel Oils				
2. Gasoline, lube oils, waste oils and other petroleum products				
3. Metals, coal tar, PCBs, pesticides/herbicides, asbestos				
4. Chlorinated Solvents or Other				
F. Environmental Concerns (Check all that apply)	Yes	No	?	
1. Site within 500 feet of surface water and/or wetlands				
2. Endangered species habitat, ACEC and/or certified vernal pool within 500 feet				
3. Confirmed contamination of surface water, sediments and/or wetlands with site contaminants				
G. Site Complexity (Check all that apply)	Yes	No	?	
1. Media other than groundwater or soil affected (surface water, air, sediment)				
2. Co-mingled plumes (i.e., different sources from one or more sites co-mingled)				
3. Bedrock contamination				
If <input checked="" type="checkbox"/> conditions currently exist, see supervisor to discuss.				

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II. TECHNICAL ADEQUACY

A. Remedial Response Actions – Indication That: (Check all that apply)

1. Documentation of removal of remediation waste provided
2. Remediation waste properly managed (reqmnts -Air 95% gw, sw [NPDES], soil properly handled)
3. Obtained DEP or other agency approvals and work done in accordance with approvals

B. Source/Extent Investigations – Indication That: (Check all that apply)

1. History of OHM use/storage/disposal at the site included
2. Potential source(s) identified, characterized, or abated (septic leach field, floor drain, AST, etc.)
3. Extent of contamination defined (including downgradient)
4. Potential or actual OHM analyzed for and/or evaluated (metals, VPH, VOCs, etc.)
5. All likely migration pathways (soil/gw/sw/air/sediment) identified/characterized/evaluated
6. Proper sample collection technique/preservation/analysis/data reporting

C. Risk Characterization – Indication That: (Check all that apply)

1. Background identified or characterized
2. Soil/groundwater category properly identified
3. EPC calculation provided (spatial or temporal) and EPC properly calculated
4. Hot Spot(s) addressed, identified (as Hot Spot) and not added in to other EPCs
5. Migration Pathways (air, groundwater, etc.) assessed and evaluated in RC (All Methods, media dependent)
6. Applicable soil and/or groundwater standards not exceeded (Method 1 or 2) or AUL applied
7. Correct risk characterization method used
8. AUL Permitted/Inconsistent Activities, etc. understandable to general public and clearly written
9. All receptors accounted for (construction worker, trespassers, wetland, etc.) (Method 3)
10. Proper Exposure Scenario assumptions (exposure period, etc.) (Method 3)
11. All Exposure Pathways (dermal, inhalation, etc.) presented (Method 3)
12. Final RAO for facility/property submitted with total site risk calculated (Method 3)

III. Response Action Outcome Statement (RAO) Indication That: (Check all that apply)

1. RAO boundaries defined/delineated (clear description/plan of RAO boundaries)
2. Relationship of RAO to other RAOs for that location has been defined
3. Correct RAO category
4. Indication as to whether OHM(s) exceed UCLs presented

A. CLASS A – Indication That: (Check all that apply)

1. All uncontrolled sources have been eliminated or controlled
2. Groundwater concentrations do not exceed standards in GW-1 area
3. Phase IV, Phase V or Post RAO O&M, where required, has been completed

A-1. CLASS A-1 – Indication That: (Check all that apply)

1. A permanent solution has been achieved
2. The level of OHM at the site has been reduced to background
3. Response actions eliminated all threats of release and a release oil and/or hazardous material to the environment has not occurred

A-2. CLASS A-2 – Indication That: (Check all that apply)

1. A permanent solution has been achieved
2. A background feasibility evaluation has been conducted which demonstrates that achievement of background is not feasible

	Citation(s)	Yes	No	?	NA	Page #
1. Documentation of removal of remediation waste provided	40.0033 (5), (6)					
2. Remediation waste properly managed (reqmnts -Air 95% gw, sw [NPDES], soil properly handled)	40.0031-40.0049					
3. Obtained DEP or other agency approvals and work done in accordance with approvals	40.0100(4), 40.0170(2-3, 5)					
1. History of OHM use/storage/disposal at the site included	40.0405(1), 40.0833, 40.0923(1)					
2. Potential source(s) identified, characterized, or abated (septic leach field, floor drain, AST, etc.)	40.0923(2)					
3. Extent of contamination defined (including downgradient)	40.0904(2)(a)					
4. Potential or actual OHM analyzed for and/or evaluated (metals, VPH, VOCs, etc.)	40.0926(1)					
5. All likely migration pathways (soil/gw/sw/air/sediment) identified/characterized/evaluated	40.0904(2)(c)					
6. Proper sample collection technique/preservation/analysis/data reporting	40.0017					
1. Background identified or characterized	40.0904(2)(b)					
2. Soil/groundwater category properly identified	40.0930					
3. EPC calculation provided (spatial or temporal) and EPC properly calculated	40.0926					
4. Hot Spot(s) addressed, identified (as Hot Spot) and not added in to other EPCs	40.0924(2)					
5. Migration Pathways (air, groundwater, etc.) assessed and evaluated in RC (All Methods, media dependent)	40.0904(2)(c)					
6. Applicable soil and/or groundwater standards not exceeded (Method 1 or 2) or AUL applied	40.0974, 40.0975					
7. Correct risk characterization method used	40.0941, 40.0942					
8. AUL Permitted/Inconsistent Activities, etc. understandable to general public and clearly written	40.0923(4)					
9. All receptors accounted for (construction worker, trespassers, wetland, etc.) (Method 3)	40.0920-40.0922					
10. Proper Exposure Scenario assumptions (exposure period, etc.) (Method 3)	40.0923-40.0925					
11. All Exposure Pathways (dermal, inhalation, etc.) presented (Method 3)	40.0925					
12. Final RAO for facility/property submitted with total site risk calculated (Method 3)	40.0993(7)					
1. RAO boundaries defined/delineated (clear description/plan of RAO boundaries)	40.1003(4), 40.1056(2)(a)					
2. Relationship of RAO to other RAOs for that location has been defined	40.1056(1)(d)					
3. Correct RAO category	40.1030 – 40.1050					
4. Indication as to whether OHM(s) exceed UCLs presented	40.1056(1)(i)					
1. All uncontrolled sources have been eliminated or controlled	40.1035 (2)(b)					
2. Groundwater concentrations do not exceed standards in GW-1 area	40.1036(5)(b)					
3. Phase IV, Phase V or Post RAO O&M, where required, has been completed	40.1036(6)					
1. A permanent solution has been achieved	40.1036(1)(a)					
2. The level of OHM at the site has been reduced to background	40.1036(1)(a)					
3. Response actions eliminated all threats of release and a release oil and/or hazardous material to the environment has not occurred	40.1036(1)(b)					
1. A permanent solution has been achieved	40.1036(2)(a)					
2. A background feasibility evaluation has been conducted which demonstrates that achievement of background is not feasible	40.1020(3), 40.1056(2)(e)					

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A-3. CLASS A-3 – Indication That: (Check all that apply)		Yes	No	?	NA	Page #
1. A permanent solution has been achieved	40.1036(3)(a)					
2. Obligations and Conditions of AUL have been implemented	40.1036(3)(c), 40.1056(2)(g)					
3. Reasonable AUL restrictions to maintain No Significant Risk (deep OHM, long exposure period, etc)	40.1074(2)(d-f, h)					
4. A background feasibility evaluation has been conducted which demonstrates that achievement of background is not feasible	40.1020(3), 40.1056 (2)(e)					
5. Groundwater or Soil OHM concentrations do not exceed UCLs	40.1036(3)(d)					
A-4. CLASS A-4 – Indication That: (Check all that apply)						
1. A permanent solution has been achieved	40.1036(4)(a)					
2. Obligations and Conditions of AUL have been implemented	40.1036 (4)(c), 40.1056(2)(g)					
3. Reasonable AUL restrictions to maintain No Significant Risk (deep OHM, long exposure period, etc)	40.1074(2)(d-f, h)					
4. Groundwater or Soil concentrations exceed UCLs; however: (check only a, b, or c)	40.1036 (4)(d), 40.1036(5)(a)					
a. concentrations are consistent with background	40.1036(5)(a)					
b. contaminated soil is greater than 15 feet below grade	40.1036 (4)(d), 40.1036(5)(a)					
c. contaminated soil is beneath an engineered barrier	40.1036 (4)(d), 40.1036(5)(a)					
5. Engineered barrier does compare favorably to all other alternatives	40.0859(4), 40.1036(4)(e)					
6. UCL Feasibility Evaluation conducted and shows that achieving UCLs is not feasible	40.1036(4)(e), 40.1056(2)(f)					
B. CLASS B – Indication That: (Check all that apply)						
1. Remedial actions have not been conducted	40.1045(2)					
2. A level of No Significant Risk does exist	40.1045(1)					
3. Initial Assessment, Phase I, or Phase II has been completed	40.1046(5)					
B-1. CLASS B-1 – Indication That:						
1. One or more AULs are not necessary to maintain a level of no significant risk	40.1046(1)					
B-2. CLASS B-2 – Indication That: (Check all that apply)						
1. Obligations and Conditions of AUL have been implemented	40.1046(2)(a), 40.1056(2)(g)					
2. Reasonable AUL restrictions to maintain No Significant Risk (deep OHM, long exposure period, etc)	40.1074(2)(d-f, h)					
3. Groundwater or Soil OHM concentrations do not exceed UCLs	40.1046(2)(b)					
B-3. CLASS B-3 – Indication That: (Check all that apply)						
1. Obligations and Conditions of AUL have been implemented	40.1046(3)(a), 40.1056(2)(g)					
2. Reasonable AUL restrictions to maintain No Significant Risk (deep OHM, long exposure period, etc)	40.1074(2)(d-f, h)					
3. OHM concentrations exceed UCLs; however: (check only a or b)	40.1046(3)(b), (c)					
a. soil is located greater than 15 feet from ground surface	40.1046(3)(b)					
b. UCL Feasibility Evaluation was conducted and shows that achieving UCLs is not feasible	40.1046(3)(c)					
C. CLASS C – Indication That: (Check all that apply)						
1. All substantial hazards have been eliminated	40.1050(1), 40.1056(2)(d)					
2. Soil and/or groundwater concentrations exceed any applicable standards	40.1050(2)(b)					
3. Phase II and Phase III were submitted	40.1050(3), 40.1050(4)(a)					
4. Plan of definitive & enterprising steps to achieve a permanent solution is included	40.1050(5)(a), 40.1056(2)(f)					
5. Statement indicating whether post RAO Active O&M will be conducted is included	40.1056(1)(e)					
6. Plan for post-RAO active O&M is included	40.1056(2)(f)					

